

BOG TURTLES AND NEW US 301

RARE, THREATENED AND ENDANGERED SPECIES

Rare, threatened, and endangered (RTE) species are wildlife and plant species that are in danger of extinction, and are protected under the Federal Endangered Species Act, and Title 7 of the Annotated Delaware Code. Potential effects to RTE species and their habitat must be considered in transportation project decision-making. Working closely with Delaware Department of Natural Resources and Environmental Control (DNREC) and the US Fish and Wildlife Service (USFWS), DelDOT identified the Bog Turtle as the only RTE species that potentially exists within the US 301 project area.

THE BOG TURTLE – A POTENTIAL RTE IN THE PROJECT AREA

The bog turtle (*Clemmys muhlenbergii*) exists within New Castle County and potentially within the project area. Bog turtles and their habitat are identified through a two-step process:

Phase I Survey identifies potential bog turtle habitat areas within existing wetlands:

- 133 wetlands were investigated from April to October 2005
- Potential habitat areas were identified along each of the four Retained Alternative alignments

Phase II/III Surveys determine if bog turtles exist in habitat areas identified during Phase I Surveys. Surveys were conducted in potential habitats along the alignment of each Retained Alternative.

- Surveys were conducted by state-approved bog turtle surveyors
- Phase II Surveys consisted of 4 separate site visits to each habitat and spending 6 person hours per acre searching for turtles. Surface basking areas, areas under dead vegetation, areas within shallow muck, and tunnels within the wetland mud were examined
- Phase III Surveys consisted of setting traps to capture turtles as they move through habitat areas. Traps were located in likely travel corridors or as drift fence trap arrays by an approved bog turtle trapper
- Surveys were completed by July 2006
- No bog turtles were captured during Phase II/III Surveys

Bog Turtle Habitats in the Project Area are Considered Potentially Occupied

Habitats identified in the surveys are considered potentially occupied by bog turtles for the following reasons:

- Historical records indicate bog turtles were present in the project area in the last 40 years.
- A bog turtle can live longer than 40 years.

- Negative Phase II/III Surveys (no bog turtles found) cannot prove the bog turtle is absent from an area.

Findings

Preliminary effect analysis and USFWS consultation indicated that each of the Retained Alternatives had similar, but not identical potential to affect the bog turtle. It was also determined that none of the Retained Alternatives posed a fatal flaw from a bog turtle protection perspective. As a result, bog turtle effects were not the deciding factor in determining which alternative was identified as DeIDOT's Recommended Preferred Alternative. Protection of the bog turtle was one of the many factors that DeIDOT considered when a Preferred Alternative was recommended.

Potential Bog Turtle Effects

A biological assessment was prepared to evaluate the potential effects of DeIDOT's Recommended Preferred Alternative on the bog turtle. This assessment concluded that the US 301 project is not likely to adversely affect the bog turtle. This conclusion was reached in part through the implementation of avoidance and minimization measures which include:

- Locating the northbound lane tie-in to SR1 between existing SR1 and US 13
- Using retaining walls along the west side of SR1
- Bridging potential bog turtle habitats
- Installation of exclusion fencing prior to construction
- Conducting pre-construction surveys

USFWS concurred with the affect determination concluding Section 7 consultation on this species. The biological assessment and the specific avoidance and minimization measures are referenced in the Record of Decision and will be conditions of the project permits. The US 301 project is committed to protecting the bog turtle through implementation of the avoidance and minimization measures identified in the biological assessment.